



## PATENT ABSTRACTS OF JAPAN

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(71) Applicant: **HITACHI LTD**  
 (72) Inventor: **KURODA OSAMU**  
**IZUKA HIDEHIRO**  
**DOI RYOTA**  
**OGAWA TOSHIO**  
**YAMASHITA HISAO**  
**AZUHATA SHIGERU**  
**OKUDE KOJIRO**  
**KITAHARA YUICHI**  
**HIRATSUKA TOSHIFUMI**  
**SHINOZUKA NORIHIRO**  
**MANAKA TOSHIO**

**(54) NOx ADSORPTION CATALYST FOR PURIFYING  
 EXHAUST GAS FROM INTERNAL COMBUSTION  
 ENGINE**

**(57) Abstract:**

**PROBLEM TO BE SOLVED:** To purify NOx and others in lean-burn exhaust gas efficiently without affecting fuel by a method in which a NOx adsorption catalyst is set in an exhaust gas passage, NOx is adsorbed/caught in an oxidative atmosphere of lean exhaust gas, a reductive atmosphere is formed, and the catalyst is regenerated.

**SOLUTION:** Sucked air, after being filtered by an air cleaner 1 and measured by an air flow sensor 2, is passed through a throttle valve 3 and supplied to an

engine 99 as a mixed gas in which the air is mixed with fuel injected from an injector 5. ECU 25 evaluates the operation state of an internal combustion engine and the state of a NOx adsorption catalyst 18, decides an operation air/fuel ratio, controls the injection time of the injector 5 and others, and sets up the fuel concentration of the mixed gas at a prescribed value. In this process, the catalyst 18 is formed from a material having the capacity of chemisorption of NOx, the capacity of catalytic reduction of NOx, and the capacity of catalytic oxidation of HC and CO in exhaust gas and contains at least one element selected from K, Na, Mg, and others.

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